

WE CLAIM:

1 1. A system permitting simultaneous searching of multiple databases,
2 comprising:
3 a network of information provider computers having associated databases
4 of information, said information provider computers being connected according to a peer-
5 to-peer protocol; said information provider computers having an index of information on
6 their associated databases and being able to check a query against the index and send the
7 information back over the network if it is located;
8 at least one user computer being connected to the network according to the
9 peer-to-peer protocol, said user computer being adapted to generate at least one query for
10 information and to send it over the network, said query containing geographical location
11 information, said user computer being adapted to receive a response to the query over the
12 network in the form of the requested information; and
13 a management center processor connected to the network according to the
14 peer-to-peer protocol, said management center processor receiving the query from said
15 user computer over the network, formulating routing information based on said query and
16 forwarding the query over the network to designated information provider computers
17 based on the routing information in response to the receipt of the query, said management
18 center receiving information responses from the information provider computers over the
19 network and forwarding them to the user computer over the network.

1 2. The system of claim 1 in which the routing information is in the form of a
2 binary tree of the designated information provider computers.
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1 3. The system of claim 1 in which the query is for information about a
2 physical item, contains specific geographic location information and distance limits; and
3 wherein the routing information limits the designated information provider
4 computers to those with information which relates to items located within the distance
5 limit from the specified geographic location.

1 4. The system of claim 1 in which the user computer has a wireless
2 connection to the network.
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1 5. The system of claim 3 in which the user computer is a portable computing
2 device with a wireless connection to the network, and the specific geographic location is
3 the current geographic location of the user computer.

1 6. The system of claim 5 in which the portable computing device is one of a
2 cellular phone, a portable phone and a personal digital assistant with a wireless Internet
3 connection.

1 7. The system of claim 1 in which the network includes the Internet.

1 8. The system of claim 7 in which the user computer supports at least one of
2 an Internet based application and a stand alone application, either of which provides a
3 user interface and peer-to-peer communications.

1 9. The system of claim 7 further including a web server of the information
2 provider which hosts an Internet web page of the information provider.

1 10. The system of claim 1 in which the management center processor further
2 includes a logging database which stores a log of queries and responses which pass
3 through it.

1 11. The system of claim 1 in which the information provider is a merchant and
2 the database is part of one of an inventory system and point-of-sale system of the
3 merchant.

1 12. The system of claim 1 in which management center processor includes a
2 routing database and the routing information is created statically from a lookup table in
3 the routing database of the management center processor.

1 13. The system of claim 1 in which in which the management center processor
2 includes a routing database and the routing information is created dynamically by

3 applying limitations on information from a lookup table in the routing database of the
4 management center processor.

1 14. A method for simultaneous searching of multiple databases associated
2 with a network of information provider computers, said information provider computers
3 being connected according to a peer-to-peer protocol, said information provider
4 computers having an index of information on their associated databases and being able to
5 check a query against the index and send the information back over the network if it is
6 located, comprising the steps of:

7 generating, at a user computer connected to the network according to the
8 peer-to-peer protocol, at least one query for information which includes geographical
9 location information;

10 sending the query over the network to a management center processor in
11 peer-to-peer protocol communication with the network;

12 formulating routing information based on said query;

13 forwarding the query over the network to designated information provider
14 computers based on the routing information;

15 comparing the query to the index of information at the information
16 provider computer to determine if the requested information is on its associated database;

17 if the requested information is on the database of the information provider,
18 formatting it into a predetermined form;

19 sending the formatted information back to the management center; and

20 sending the formatted information from the management center to the user
21 computer.

1 15. The method of claim 14 wherein the routing information is in the form of
2 a binary tree of the designated information provider computers.

1 16. The method of claim 14 in which the query is for information about a
2 physical item, contains specific geographic location information and distance limits; and
3 wherein the routing information limits the designated information provider
4 computers to those with information which relates to items located within the distance
5 limit from the specified geographic location.

1 17. The method of claim 14 in which the user computer has a wireless
2 connection to the network.

1 18. The method of claim 17 in which the user computer is a portable
2 computing device with a wireless connection to the network, and the specific geographic
3 location is the current geographic location of the user computer.

1 19. The method of claim 18 in which the portable computing device is one of
2 a cellular phone, a portable phone and a personal digital assistant with a wireless Internet
3 connection.

1 20. The method of claim 14 in which the network includes the Internet.

1 21. The method of claim 20 in which the user computer supports at least one
2 of an Internet based application and a stand alone application, either of which provides a
3 user interface and peer-to-peer communications.

1 22. The method of claim 21 further including a web server of the information
2 provider which hosts an Internet web page of the information provider.

1 23. The method of claim 14 further including the step of storing a log of
2 queries and responses which pass over the network.

1 24. The method of claim 14 in which the information provider is a merchant
2 and the database is part of one of an inventory method and point-of-sale system of the
3 merchant.

1 25. The method of claim 14 in which the step of formulating the routing
2 information is static and includes looking up in a table routing information in a database
3 of the management center processor.

1 26. The method of claim 14 in which in the step of formulating the routing
2 information is dynamic and includes:
3 looking up in a table routing information in a database of the management
4 center processor, and
5 applying limitations on information from the lookup table.

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